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EXAMINER

SORKIN, DAVID L

ART UNIT

PAPER NUMBER

1723

DATE MAILED: 12/05/2001

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/638,017

Applicant(s)

WHITED, JERREL L.

Examiner

David L. Sorkin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

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DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-17, drawn to a mixing chamber having a rotatable agitator, classified in class 366, subclass 305.
 - II. Claims 18-20, drawn to a method of treating seed, classified in class 427, subclass 4.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus could be used to mixer material other than seed, such as coal particles.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

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5. During a telephone conversation with Paul Gallagher on 27 November 2001 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-17. Affirmation of this election must be made by applicant in replying to this Office action. Claims 18-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Drawings

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "44" has been used to designate both the "central axis" and the "stationary drum"; reference character "60" has been used to designate both the "opening" and "transverse flange" (see fig. 4); reference character "106" has been used to designate two different items in Fig. 5; reference character "128" has been used to designate "curved mounting plates" in Figs. 5, 11 and 12 and a "wiper" in Fig. 14; reference character "130" has been used to designate "a central plate" in Figs. 5, 11 and 12 and a "wiper" in Fig. 14; reference character "132" has been used to designate "a small flat steel mounting piece" in Figs. 14 and an unknown item in Fig. 5; reference character "142" has been used to designate two different items in Fig. 14 as well as a two other items in Fig. 13. Also, reference character "46" appears to be used to designate the central axis in Fig. 4, whereas "46" designates a wall according to the specification and other figures. Correction is required.

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference signs mentioned in the description:

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"lead-in lines 89" (see page 7, line 16 and page 14, line 12) and "imperforate wall 107" (see page 8, line 17). Correction is required.

Specification

8. The disclosure is objected to because of the following informalities: The reference character inconsistencies discussed above with regard to the drawings must be corrected in the specification as well. See for example page 5, lines 15-17, page 6, lines 7 and 13, and page 10, lines 4, 5, 18 and 19.

9. In line 15 of page 8, "fixadly" should read - - fixedly - -.

10. In line 24 of page 14, "150" should read - - 151 - -.

Appropriate correction is required.

Claim Objections

11. In claim 1, the period at the end of line 14 should be a comma. Appropriate correction is required.

12. The word "surface" should be deleted in line 20 of claim 1 to improve clarity.

13. In claim 4, line 7, "plated" should apparently read "plates".

14. In claim 16, line 1, "compromising" should read - - comprising - -.

Claim Rejections - 35 USC § 112

15. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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16. Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitation is "power means ... underlying the hog back throughout its extent" is not enabled by the specification. While it is unclear what "its" refers to, as discussed below, considering drive belt 153 to be the "power transmitting means" only about half the extent of the hogback is underlain by the belt (see fig. 1) and the entire belt is not overlain by the hogback though out the extent, because the belt extends outside the drum to the motor and the hogback is confined within the drum. In conclusion whether "its" means the "hogback" or the "power transmitting means", claim 13 is not enabled.

17. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

18. Claims 1-15 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

19. Claim 1 recites the limitation "the bottom opening of the seed treater". There is insufficient antecedent basis for this limitation. Two bottom openings are recited, the bottom opening of the upper bowl and the bottom opening of the drum. It is suggested that "the bottom opening of the seed treater" instead read - - the bottom opening of the drum - -.

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20. In claim 2, line 7, it is unclear what "it" refers to.
21. In claim 3, line 4, it is unclear whether "the being means" refers to the upper first bearing means or the lower first bearing means or both.
22. In claim 4, line 2, there is lack of antecedent basis for "the supporting means".
23. In claim 4, line 12, there is lack of antecedent basis for "the upper bearing means". "[A]n upper protected bearing support" is not considered to be sufficient antecedent basis for "the upper bearing means".
24. In claim 4, line 13, it is unclear if "the plate" refers to the horizontal plate or one of the end plates.
25. In claim 5, there is lack of antecedent basis for "the outlet ends of the fluid flow hoses". No hoses have been recited in claim 5 or its parent claims.
26. In claim 5, it is unclear what the scope of "its structures" is.
27. In claim 5, it is unclear what "the exterior" refers to. The exterior of what?
28. In claim 6, there is lack of antecedent basis for "the terminal ends of the fluid flow hoses". No hoses have been recited in claim 6 or its parent claim.
29. In claim 7, line 6, there is lack of antecedent basis for "the fluid line".
30. In claim 8, line 2, the phrase "each the spreader..." is unclear. Perhaps "each the spreader" should read - - each of the spreader - -.
31. In claim 8, line 2, there is lack of antecedent basis for "the ... coaters".
32. In claim 8, line 4, the phrase "from bottom plate" should read - - from the bottom plate - -.

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33. Claims 10 and 11 are rendered indefinite by the word “similarly”. See *Ex parte Kristensen*, 10 USPQ2d 1701 (Bd. Pat. App. & Inter. 1989) and *Ex parte Pappas*, 23 USPQ2d 1636 (Bd. Pat. App. & Inter. 1992).

34. In claim 11, line 3, there is lack of antecedent basis for “the lower bowl”. Perhaps “the lower bowl” should read - - the central bowl - -, especially considering that recitation of “a lower rotary coater ... mounted below the lower bowl” contradicts the drawings and the remainder of the specification (given that an upper and central bowl has been previously recited). No coater below the lower bowl is shown in the drawings or discussed in the specification, except in this claim.

35. In claim 12, the phrase “below all of the above instrumentalities and structures”. It is unclear if “above” is meant in a physical sense referring to the apparatus or in a linguistic sense referring to the written claims. It is unclear what the scope of “all the above instrumentalities and structures” is.

36. Claim 13 is unclear. In parent claim 1, “power means for rotating the shaft surface” are recited. Then, in line 2 of claim 13, “power means” are again recited, and in line 3 of claim 13, “power transmitting means” are recited. Finally, in lines 3-4 of claim 13, “the power means” is recited. To which of the three previously recited power means does “the power means” refer?

37. In claim 13, line 5, it is unclear what “its” refers to, the “hogback” or the “power transmitting means”?

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38. In claim 14, it is unclear whether "the bottom opening" refers to the bottom opening recited in line 3 of claim 1 or the bottom opening recited in line 10 of claim 1.

39. In claim 14, it is unclear whether "positioned coaxially with the drum" applies to "the bottom opening" or "the bottom bowl" or both.

40. In claim 14, there is lack of antecedent basis for "the bottom opening positioned coaxially with the drum".

41. Claim 17 is rendered indefinite by the limitation "conduit means", because "conduit" is not a function. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967):

Claim Rejections - 35 USC § 102

42. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

43. Claims 1-3, 6, 9-12 and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Russell (US 2,204,029). Regarding claim 1, Russell ('029) discloses a treater comprising, a drum (5), having a surrounding wall and a top opening and a bottom opening (see fig. 1); a rotatable shaft (13) mounted in the drum on a vertical axis; a spreader (20, the uppermost one) mounted on the shaft adjacent the top of the drum; and upper bowl (in the alternative, any of the four bowls 16) below the spreader, and tapering downwardly and having a bottom opening (17) and being otherwise imperforate and secured to the surrounding wall without space between itself and the

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surrounding wall and all material thrown from the spreader will flow into the upper bowl and material will flow through the bottom opening in the upper bowl and through the bottom opening of the drum (see figs. 1 and 2); and the treater includes power means for rotating the shaft (see col. 1, lines 53-55). Regarding claim 2, the drum has a top cover (11) in which the top opening is formed, and the drum includes a flange unit (6) on the top cover having a central opening co-axial with the top opening of the drum and a flange element spaced axially from the top cover and extending transversely from the axis, for detachably securing it to an overhead supporting structure (see fig. 1).

Regarding claim 3, the treater includes upper and lower first bearing means (9,10) for supporting the shaft, second means (11) for supporting the bearing means within the drum, the second supporting means being operable for detachably mounting the second supporting means on the surrounding wall (see col. 1, lines 45-50). Regarding claim 6, the treater includes a rotary applicator (second blades 20 from top in Fig. 1) between the spreader (uppermost blades 20 in Fig. 1) and the upper bowl (second bowl 16 from top in Fig. 1), the applicator is mounted on the shaft and is rotatable therewith (see Fig. 1; col. 2, lines 35-36). Regarding claim 9, the treater includes an upper rotary coater (third blades 20 from top in Fig. 1) below the upper bowl and secured to the shaft.

Regarding claim 10, the treater includes a central bowl (third bowl 16 from top in Fig. 1) substantially identical with the upper bowl below the upper coater, and mounted in the drum similarly to the upper bowl (see fig. 1). Regarding claim 11, the treater includes a lower rotary coater (bottom blade 20 in Fig. 1) substantially identical with the upper

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rotary coater and mounted below the central bowl (see discussion of claim 11 with regard to section 112 above) and mounted similarly to the upper rotary coater.

Regarding claim 12, the treater includes a hogback (19,21,23,24,25) adjacent the lower end of the drum and below all the above instrumentalities and structures, the hogback being constituted by a rigid elongated piece extending diametrically across the drum and secured at its end to the surrounding wall, and lower bearing means (9) mounted on and under the hogback and supporting the shaft. Regarding claim 14, the drum includes a bottom closure element (8) of downwardly directed cone shape, forming a bottom bowl, secured to the surrounding wall, the bottom bowl includes the bottom opening positioned coaxially with the drum, and surrounding imperforate element.

Regarding claim 15, the treater includes in addition to the upper bowl, a central bowl (third bowl 16 from top in Fig. 1) and a bottom bowl (bottommost bowl 16 in Fig. 1), all concentric with the axis and wiper (20) secured to the shaft and extending into the respective bowls for wiping the floors of the bowls. Regarding claim 16, Russell ('029) discloses a treater comprising, a cylindrical drum (5), having a top opening and a bottom opening (see fig. 1); the drum including means for mount (see fig. 1); the drum including means for mixing (13,14,20); the apparatus including power means (see col. 1, lines 53-55). Regarding claim 17, the apparatus includes conduit means leading from the exterior into the interior of the drum (see col. 1 of page 2, lines 6-7).

44. Claims 1-3, 6, 9-12, 14, 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiner (US 1,102,696). Regarding claim 1, Shiner ('696) discloses a

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treater comprising, a drum (1), having a surrounding wall and a top opening and a bottom opening (see fig. 1); a rotatable shaft (5) mounted in the drum on a vertical axis; a spreader (23, the uppermost one) mounted on the shaft adjacent the top of the drum; and upper bowl (18, for example the third one from the top in Fig. 1) below the spreader, and tapering downwardly and having a bottom opening (22) and being otherwise imperforate and secured to the surrounding wall without space between itself and the surrounding wall and all material thrown from the spreader will flow into the upper bowl and material will flow through the bottom opening in the upper bowl and through the bottom opening of the drum (see fig. 1); and the treater includes power means (11,12) for rotating the shaft. Regarding claim 2, the drum has a top cover (see fig. 1) in which the top opening is formed, and the drum includes a flange unit (F') on the top cover having a central opening co-axial with the top opening of the drum and a flange element spaced axially from the top cover and extending transversely from the axis, for detachably securing it to and overhead supporting structure (see fig. 1). Regarding claim 3, the treater includes upper and lower first bearing means (7,6) for supporting the shaft, second means for supporting the bearing means within the drum, the second supporting means being operable for detachably mounting the second supporting means on the surrounding wall (see fig. 1). Regarding claim 6, the treater includes a rotary applicator (second 23 from top in Fig. 1) between the spreader (uppermost 23 in Fig. 1) and the upper bowl (third bowl 18 from top in Fig. 1), the applicator is mounted on the shaft and is rotatable therewith page. 2, lines 24-26).

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Regarding claim 9, the treater includes an upper rotary coater (third 23 from top in Fig. 1) below the upper bowl and secured to the shaft. Regarding claim 10, the treater includes a central bowl (fourth bowl 18 from top in Fig. 1) substantially identical with the upper bowl below the upper coater, and mounted in the drum similarly to the upper bowl (see fig. 1). Regarding claim 11, the treater includes a lower rotary coater (fourth 23 in Fig. 1) substantially identical with the upper rotary coater and mounted below the central bowl (see discussion of claim 11 with regard to section 112 above) and mounted similarly to the upper rotary coater. Regarding claim 12, the treater includes a hogback adjacent the lower end of the drum and below all the above instrumentalities and structures, the hogback being constituted by a rigid elongated piece extending diametrically across the drum and secured at its end to the surrounding wall, and lower bearing means (8) mounted on and under the hogback and supporting the shaft (see fig. 1). Regarding claim 14, the drum includes a bottom closure element (bottommost bowl 18 in fig. 1) of downwardly directed cone shape, forming a bottom bowl, secured to the surrounding wall, the bottom bowl includes the bottom opening (22) positioned coaxially with the drum, and surrounding imperforate element Regarding claim 16, Shiner ('696) discloses a treater comprising a cylindrical drum (1) having top and bottom openings (see fig. 1); the drum including means for mounting (F,F'), the drum including means for mixing (5,23,24); the apparatus including power means (11,12). Regarding claim 17, the apparatus includes conduit means (17).

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Claim Rejections - 35 USC § 103

45. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

46. Claims 4, 5, 7, 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russell (US 2,204,029). The apparatus of over Russell ('029) was discussed above with regard to claims 1 and 12. Regarding claim 4, Russell ('029) further discloses the drum is cylindrical (see col. 1, lines 35-37) and includes an upper bearing support (11) extending diametrically across the drum and including spaced apart side bars positioned vertically on edge, and having end plates also positioned on edge by which the upper bearing support is detachably secured to the surrounding wall (see figs. 1 and 2; col. 1, lines 46-49), the bearing support also includes a central horizontal plate (just radially outside 10, see figs. 1 and 2), the upper bearing means (10) is detachably and fixedly mounted on the plate, whereby great space is provided for material to flow (see fig. 2). Russell ('029) fails to disclose the bearing support being between the spreader and the upper bowl. However, it has been held that it is obvious to rearrange parts in such a manner (see *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950)). Regarding claim 5, the support includes holes (see fig. 2). Regarding claim 7, a rotary applicator (20, second one from top) is disclosed and is between the upper bearing support and the upper bowl. Regarding claim 8, the spreader and

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applicator include a bottom plate (15) extending substantially its full area and vertical blades (20) extending upwardly extending upwardly from the bottom plate. Regarding claim 13, it is quite unclear what is being claimed and this claim appear not to be enabled (see discussion with regard to section 112 above). As best understood by the examiner, claim 13 is unpatentable over Russell ('029). Russell ('029) states the "[p]ower is applied to the shaft 13 in any well known manner" (col. 1, lines 53-55).

47. Claims 4, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiner ('696). The apparatus of Shiner ('696) was discussed above with regard to claim 1. Regarding claim 4, Shiner ('696) further discloses the drum is cylindrical (see page 1, line 84) and includes an upper bearing support (20,27, second from top in fig. 1) between the spreader and the upper bowl extending diametrically across the drum and includes spaced apart side bars (20) positioned vertically on edge and having end plates also positioned on edge by which the upper bearing support is secured to the surrounding wall, the upper bearing support also includes a central horizontal plate (19) secured to the side bars, the bearing means is mounted on the plate whereby relatively great space is provided for material to flow (see figs. 1 and 2). Shiner ('696) fails to explicitly disclose that the support is detachable. However, it has been held that making a part detachable is obvious (see *In re Dulberg*, 289 F.2d 522,523, 129 USPQ 348, 249 (CCPA 1961)). In the instant case, it is considered that it would have been obvious to one of ordinary skill in the art to have made the support detachable, to facilitate maintenance of the apparatus. Regarding claim 5, the support includes hole (See fig.

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2). Regarding claim 7, the treater includes a rotary applicator (24, second from top in Fig. 1) positioned between the upper bearing support and the upper bowl.

Conclusion

48. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

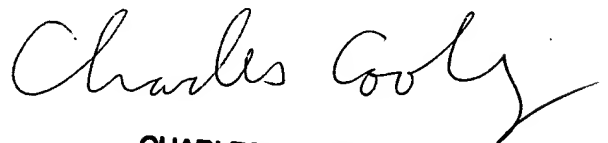
Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Sorkin whose telephone number is 703-308-1121. The examiner can normally be reached on 8:00 -5:30 Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 703-308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

David Sorkin

December 2, 2001



**CHARLES E. COOLEY
PRIMARY EXAMINER**